Freshwater SQG Endpoint Recalculation

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The Issue

- At the no adverse effects level (SL1 or SQS), the Chironomus and Hyalella acute mortality tests did not show good reliability
- In other words, chemical concentrations were not well-correlated with toxic effects
- Growth endpoints and chronic tests were reliable at all effects levels

Possible Causes

- Natural variations in bioavailability of chemicals in freshwater environments
- Poor ability of acute mortality tests to detect low levels of effects
- Hit/no-hit criteria were set below MDD threshold (10% difference from control)

Based on input from various reviewers, we tested the last issue above.

Work Conducted

- A set of alternative hit/no-hit criteria were defined: 10-30% difference from control, in 5% increments
- The alternative criteria were programmed into EIM
- All of the FW data were re-downloaded and compared to each criterion
- SQG modeling and reliability testing were conducted for each test/criterion combination